

Volume 4. Aircraft Equipment and Operational Authorizations

CHAPTER 4. MINIMUM EQUIPMENT LISTS (MEL) AND CONFIGURATION DEVIATION LISTS (CDL)

SECTION 4. MEL USE IN SERVICE

1149. GENERAL. This section contains specific direction, guidance, and procedures for aviation safety inspectors (ASI) on the revision, administration, and policy application for administering MELs that have been approved for use by operators and fractional ownership program managers operating under the provisions of Title 14 of the Code of Federal Regulations (14 CFR) parts 121, 129, 135, and 91 subpart K.

1151. REVISION PROCEDURES.

A. Revisions to an MEL. Revisions to an operator's MEL may be initiated by either the operator or the FAA. Operator-initiated revisions may be equal to or more restrictive than the Master Minimum Equipment List (MMEL). It is not necessary for an operator to submit an entire MEL when requesting the approval of a revision. The minimum submission would consist of only the affected pages; the approval by the principal operations inspector (POI) may only consist of specific items. These items are approved within a controlled process, and the operator will produce the final MEL document. If the revision results in individual pages either being added or deleted, a revised table of contents page is also required. The issuance of an airworthiness directive (AD) will not be the basis for change to an operator's MEL. Instead, AD's will be referred to the Flight Operations Evaluations Board (FOEB) chairman for appropriate changes to the MMEL.

NOTE: When operations ("O") or maintenance ("M") procedures are required per the MMEL, it is the operator's responsibility to develop appropriate procedures or to use manufacturer-developed procedures in order to meet the requirements for inclusion of the item on the MEL. The POI is not authorized to grant MEL relief unless acceptable "O" and "M" procedures are provided by the operator.

B. Standard Revision. A standard revision to the MMEL is applicable to all operators using an approved MEL for that aircraft. A standard revision is identified by number only. Each subsequent standard revision will carry the next successive number. For example, the next standard revision following Revision 5 will be Revision 6.

C. Interim Revision. An interim revision to the MMEL allows the operator the option of revising its MEL for that aircraft. If the relief granted by the interim MMEL revision is applicable to its operation and aircraft configuration, then it would be advantageous for the operator to gain MEL approval through revision. If, however, the MMEL interim revision is not applicable, the operator may disregard that interim revision and continue to use its current approved MEL.

(1) An interim MMEL revision will be identified by the current standard revision number plus a lowercase letter. For example, an interim revision following Revision 5 will be identified as Revision 5a. There may be subsequent interim revisions to the same standard revision. These carry the next lower case letter, i.e., 5b, 5c, 5d, etc.

(2) When the FOEB releases the next standard revision, it will incorporate all the previous interim revisions. For example, the next standard revision following Revisions 5a, 5b, 5c, etc., will be Revision 6.

D. MEL Revision Initiated by an Operator. An operator-initiated MEL revision will normally fit into one of the following three categories:

(1) *Items Not Requiring an MMEL Change.* Operators may propose changes to an MEL that are equal to, or more restrictive than, the MMEL. These revisions are approved by the POI using the same procedures as those required for an original MEL approval.

(2) *Items Requiring an MMEL Change.* Operators may request changes to an MEL that are less restrictive than the MMEL. However, the MEL cannot be revised until the MMEL has been revised to permit the proposed MEL change. The most common instance of a revision request of this type occurs when an operator installs additional equipment on an aircraft and provisions for that equipment are not included on the current MMEL.

(3) *Major Aircraft Modifications.* Major aircraft modifications, such as a supplemental type certificate (STC), a major alteration (FAA Form 337, "Major Repair and Alteration") or a type certificate (TC) amendment, may invalidate the MEL for that aircraft. Operators should

review the MEL to assess the impact of any planned modification and should immediately notify the POI of these modifications and the impact on the MEL. The POI should obtain guidance from the appropriate aircraft evaluation group (AEG) to determine if a revision to the MMEL is required.

E. MEL Revisions Initiated by the FAA. When the FAA revises an MMEL, operators, manufacturers, and certificate-holding district offices (CHDO) receive notification by a postcard generated by the automated Master Minimum Equipment List Subsystem (MMEL Subsystem).

(1) *Non-Mandatory Revision (Interim).* MMEL revisions that only provide additional relief are reflected by a lower case letter suffix following the MMEL numeric revision number; for example, MMEL Revision No. 8 would become Non-Mandatory Revision No. 8a. Any MMEL changes that are less restrictive than the operator's MEL may be ignored by the operator. An example of a non-mandatory revision is when the MMEL has been revised to provide for optional equipment normally not installed on all aircraft of a particular type, such as logo lights. Operators that operate aircraft with logo lights may choose to revise the MELs, while operators operating without logo lights would not.

(2) *Global Change (GC) (Issued as a Policy Letter).* A global change is defined as a newly developed, or a change to existing, MMEL relief for an inoperative item that is usually relieving in nature, and is applicable to all MMEL. A global change is another type of non-mandatory revision. A global change generally applies to items of equipment that are required to be installed by a new regulatory requirement, such as a cockpit voice recorder (CVR), or a traffic alert and collision avoidance system (TCAS). Items affected by FAA policy decisions are also global changes. The global change does not replace the normal MMEL revision process (section 2 of this chapter). When a standard revision to an MMEL is issued, it will include all global changes issued to date. However, since the process for revising the MMEL can be lengthy, and the operator's MEL must be based on the MMEL, a global change will allow an operator to revise its MEL prior to the change in the MMEL. The POI has the authority to approve the operator's MEL revision on the basis that the global change is an approved addendum to the existing MMEL. Availability of global changes will be transmitted to Flight Standards District Offices (FSDO) via e-mail. A list of global changes can also be obtained through the MMEL Subsystem (see section 5 of this chapter for guidance). The FOPB has established a GC process applicable to inoperative installed equipment, that will permit the application of relief granted by selected policy letters to operator MEL upon its receipt. A GC will be released with consecutive assigned control numbers and will reference approved MMEL Policy Letter.

(3) *Mandatory Revisions.* Mandatory changes, which are more restrictive and may remove relief from the

current MMEL, are reflected by the next successive change to the basic MMEL revision number itself. For example, the next mandatory revision following the non-mandatory revisions 6a, 6b, or 6c would be revision 7. Any MMEL changes that are more restrictive than the operator's MEL will be implemented by the operator as soon as possible. In some cases when relief is removed from the MMEL, there will be a specific date for compliance, or guidance for an acceptable date to be negotiated between the POI and the operator.

(4) *POI-Initiated Revision.* A POI may initiate an MEL revision that is not based on a revision to the MMEL. The POI should make such a request to the operator in writing, stating specific reasons why the revision is necessary. A POI-initiated revision may be made upon the discovery that an operator has modified an aircraft or that faulty maintenance or operations procedures exist. The POI should work closely with the operator and make every effort to resolve the matter in a mutually agreeable manner. The operator should be given a reasonable time period to make the required changes depending on whether safety of flight is affected. In the event that the operator declines to make the required change, the POI may consult with the PMI to initiate an amendment of the operator's OpSpecs/MSpecs to rescind the authority for the MEL. In such a case, the procedures contained in volume 3, chapter 1, section 7, of this handbook should be followed.

(5) *Modifications Within a Fleet.*

(a) If an operator has been granted approval to use the MEL for a fleet, and the operator installs a new piece of equipment in one or more aircraft, the operator may continue to operate that aircraft under the provisions of the currently approved MEL. The operator may not defer repair of the new item until an appropriate revision to the MEL has been approved.

(b) *New Equipment Installations for Fleet Aircraft.* Instruments and equipment installed on an aircraft prior to the effective date of a new regulatory requirement may be listed on the MMEL with the following proviso: "May be inoperative until required by FAR". The FOEB Chairman should be prepared to implement this policy prior to the effective date of future new regulations that require installation of new equipment. Also, the FOEB should prepare an appropriate MMEL provision for the new equipment to replace the above proviso following the effective date of the new equipment requirement.

1153. TRACKING OF REVISION STATUS. POIs shall maintain a copy of the current MEL for each assigned operator's aircraft type. The POI shall update the MMEL Subsystem to record and track the revision status of the operator's MEL (see section 5 of this chapter).

1155. AVAILABILITY OF MEL FOR FLIGHT CREWMEMBERS. Parts 121, 135, and 91 subpart K require that flight crewmembers have direct access to the MEL at all times prior to flight. Although not required, the easiest method of compliance with this requirement is for the operator to carry the MEL aboard each aircraft. The operator may choose to use some system of access to the MEL other than the MEL document. For example, the flightcrew may obtain access to the MEL through the ARINC Communications Addressing and Reporting System (ACARS). The critical element in approving an alternate form of access is whether or not the flightcrew has a direct means of access to the appropriate information in the MEL, specifically “O” and “M” procedures. Direct access should not be construed to mean access through telephone or radio conversations with maintenance or other personnel. If the operator chooses to provide the flightcrew with access to the MEL by other than printed means, the method must be approved in the operator’s MEL program.

1157. METHOD OF AUTHORIZING FLIGHT CREWMEMBER ACCESS TO MEL. POIs may approve a method other than printed means for providing the flightcrew with access to the MEL as provided in part 121 § 121.628(a)(2) and part 135 § 135.179(a)(2). Before authorizing such a method, the POI must be confident that the operator has an adequate means in place to provide flightcrews with the complete equivalent of the actual text of the MEL. This method must be described in detail in the operator’s FAA-accepted general operating manual or equivalent. When the decision is made to authorize this alternative method, the POI should use appropriate provisions. In this case, the “Applicable FAR Section” of the OpSpecs/MSpecs would be either § 121.628 or § 135.179, as appropriate, and the “Remarks and/or References” section would refer to the appropriate section of the operator’s manual.

1159. DISCREPANCIES DISCOVERED DURING FLIGHT. Use of the MEL is not applicable to discrepancies or malfunctions that occur or are discovered during flight. Once an aircraft moves under its own power, the flightcrew must handle any equipment failure in accordance with the approved flight manual. A flight is considered to have departed when the aircraft moves under its own power for the purpose of flight. Discrepancies occasionally occur between the time the flight departs and the time it takes off. If the flight manual contains procedures for handling that discrepancy, or if the pilot-in-command (PIC) deems that the discrepancy does not affect the safety of flight, the flight may continue. The discrepancy must be addressed prior to the next departure. For those operators who are required to use a dispatch or flight release, the PIC must handle a discrepancy that occurs after the issuance of the release, but before the flight departs, in accordance with the MEL. The PIC must obtain a new or amended dispatch or flight release, as well as any required airworthiness release. This

new or amended release must contain any applicable flight restrictions necessary for operation with any item of equipment that is inoperative. (See paragraph 1161 in volume 3, chapter 6, section 1, “Operational Control.”)

1161. DOCUMENTATION OF DISCREPANCIES. Provisions of the MMEL preamble require that an airworthiness release be issued or an entry be made in the aircraft maintenance record or logbook prior to conducting any operations with items of equipment that are inoperative. Part 121 operators and those part 135 operators who use a Continuous Airworthiness Maintenance Program (CAMP) generally require the use of a formal airworthiness release issued by an authorized maintenance person. Other part 135 operators and 91K fractional ownership program managers must have adequate methods for recording the authorization to operate the aircraft with items of equipment that are inoperative. This does not imply that the involvement of an FAA-certificated mechanic or other person authorized under part 43 to approve an aircraft for return to service is required in all cases. Unless maintenance actions are performed on the aircraft, part 91K/135 flightcrews may make appropriate documentation in the aircraft maintenance log required by § 135.65.

1163. CONFLICT WITH AIRWORTHINESS DIRECTIVES. Occasionally an AD may apply to an item of equipment that may be authorized to be inoperative under the MEL. The item may not simply be deferred under the MEL in order to avoid or delay compliance with the AD or an FAA-approved alternate means of compliance with the AD. In all cases, when an AD has been issued, the operator must comply fully with the terms of the AD or an FAA-approved alternate means of compliance with the AD. The FAA must approve any alternative method of compliance with the AD as provided in the AD. In other cases, the provisions of an AD may allow operation of the aircraft on the condition that certain items of installed equipment be used or be operable. In those cases, the affected items must be operable even though the MEL may provide for deferral of repair.

1165. INTERRELATIONSHIPS OF INOPERATIVE COMPONENTS. When the MEL authorizes a component of a system to be inoperative, only that component may be affected. When a system is authorized to be inoperative, individual components of that system may also be inoperative. Any warning or caution systems associated with that system must be operative unless specific relief is authorized in the MEL. The operator must consider the interrelationship of inoperative components. This consideration must include the following:

- The interrelationship of one piece of equipment on another
- The crew workload
- The operation of the aircraft

- The flight restrictions

1167. REPAIR CATEGORIES. When an item of equipment becomes inoperative, and repair is deferred under an MEL, the operator must make repairs as specified by the associated repair category designator (“A,” “B,” “C,” or “D”) and the operator’s MEL management system. In the event that more items are installed than those that are required for normal operation, the “C” repair category may be used. For example, if one altitude alerting system is required and the associated repair category is “B,” but there are two such systems installed, failure of the first system could be deferred as specified for a “C” category item (10 days). Failure of the remaining system would limit at least one system to the repair category for the “B” category item (3 days). See the definitions section of the MMEL for an explanation of repair categories.

A. The Flight Operations Policy Board (FOEB) has established the following guidelines and criteria for approving Category D items for the MMEL and the operator’s MEL:

(1) Category D items will be presented to the FOEB as agenda items.

(2) Category D items are those items which an operator may, at its discretion, deactivate, remove from, or install on its aircraft provided that:

(a) Absence of the item does not adversely affect crew workload.

(b) The flightcrew does not rely on the function of that item on a routine or continuous basis.

(c) The flightcrew’s training, subsequent habit patterns and procedures do not rely on the use of that item.

(3) Category D will Be a non-extendible 120-day repair interval.

(4) The definitions “As required by FAR” and “Excess items” are applicable for Category D MMEL agenda items.

B. During the review process the POI should review the following:

(1) POIs, when approving Category D items for the operator’s MEL, are encouraged to coordinate with the assigned principal maintenance inspector (PMI) and principal avionics inspector (PAI) in areas of their expertise.

(2) The POI should evaluate each Category D MMEL item against the operator’s type of operation to determine its suitability. Some items because of crew training, crew dependency, or operational dependency may not be designated as a Category D for a specific operator. An example would be SELCAL for an operator with extensive international operations. Another example would be the ACARS for an operator that has developed operational procedures dependent on its use. An inoperative system deferred by maintenance for 120-days should not negatively affect the operator’s operation. Category D MMEL items determined by the POI to be inappropriate for the operator should remain as a Category C repair interval in the operator’s MEL.

(3) The terminology “excess items” used in the MMEL for Category D items will not be used in the operator’s MEL. Those items which are identified as “excess” by the operator and authorized Category D relief by the MMEL must be specifically listed in the operator’s MEL.

1169. PROGRAM TRACKING AND REPORTING SUBSYSTEM (PTRS) INPUT. Operations inspectors should use activity code 1322 to record each MEL revision into the PTRS. The inspector keeping the record open until the revision is approved should document the revision process in the PTRS.

1170.-1180. RESERVED.

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